

Patent claims

1. A connector-plug part (1) for an optical plug-in connection, with a connector-plug pin (2), in which an optical waveguide stub (21) extending over a longitudinal center axis (3) is held, and with a sleeve-like pin holder (4) with a pin receiving section (5), in which the connector-plug pin is held, and with a cable receiving section (6), to which the end of an optical waveguide cable (7) can be fixed in a tension-resistant manner, it being possible for the optical waveguide stub to be welded to the optical waveguide end (23) on the cable side, characterized in that the cable receiving section (6) has at least one cladding part (8, 8'), which can be pivoted at a joint (9) by a certain pivoting angle between an open position and a closed position, the end (22) of the optical waveguide stub (21) that is to be welded lying in the pivoting region of the cladding part, and in that a protective sleeve (25, 25') which can be divided and closed around the welded location is arranged within the cable receiving section (6).
2. The connector-plug part as claimed in claim 1, characterized in that the pin holder (4) comprises two shell parts (10, 10'), which can be fitted together along the longitudinal center axis (3), each shell part having a pivotable cladding part (8, 8'), and the protective sleeve likewise comprising two sleeve shells (25, 25'), each of which can be fastened on the inside of a cladding part.

3. The connector-plug part as claimed in claim 2, characterized in that the two cladding parts (8, 8') altogether form the cable receiving section (6) and are connected to the pin receiving section (5) at the joint (9).
4. The connector-plug part as claimed in claim 2 or 3, characterized in that the pin holder (4) comprises two identical shell parts (10, 10'), which can be fitted together on a plane running through the longitudinal center axis (3).
5. The connector-plug part as claimed in claim 1, characterized in that at least the cable receiving section (6) comprises two preferably identical shell parts, which can be fitted together along the longitudinal center axis (3), each shell part forming the pivotable cladding part (8, 8'), which is connected to the pin receiving section (5) at the joint (9), and the protective sleeve likewise comprising two sleeve shells (25, 25'), each of which can be fastened on the inside of the cladding part.
6. The connector-plug part as claimed in one of claims 2 to 5, characterized in that neighboring shell parts (10, 10') have on their contacting surfaces (11) projections and clearances which engage in one another, in particular lugs (12) and lug openings (13).
7. The connector-plug part as claimed in one of claims 2 to 6, characterized in that the protective sleeve (25, 25') is mounted displaceably in the axial direction in the cable receiving section (6) in relation to the latter.
8. The connector-plug part as claimed in one of claims 2 to 7, characterized in that the two sleeve shells (25, 25') of the

protective sleeve have on their inside (38), facing the optical waveguide, a channel (37) which receives the optical waveguide and is provided with an adhesive material.

9. The connector-plug part as claimed in one of claims 2 to 8, characterized in that the two sleeve shells (25, 25') of the protective sleeve have on their inside (38), facing the optical waveguide, a receiving section (39, 39') at each of their two ends, which respectively clasps the circumferential surface of an optical waveguide cable and of the optical waveguide stub in a clamping manner.
10. The connector-plug part as claimed in one of claims 2 to 9, characterized in that the two sleeve shells (25, 25') of the protective sleeve are elastically deformable and in that they can be fixed on the inside of the cladding parts (8, 8') in such a way that their insides (38), facing the optical waveguide, run in a concavely curved manner and that the sleeve shells can be fitted together in the closed position of the cladding parts by pressure from the outside.
11. The connector-plug part as claimed in claim 10, characterized in that the sleeve shells (25, 25') have on their contacting surfaces (38) interengaging projections and clearances, in particular lugs (41) and lug openings (42), which are arranged in such a way that they still do not engage in one another in the concavely curved state of the sleeve shells.
12. The connector-plug part as claimed in claim 7 and either of claims 10 and 11, characterized in that each sleeve shell (25, 25') is fastened by an insertion head (43) in a corresponding opening (44) in the cladding part, the insertion heads being releasable from the openings after the pressing

together of the sleeve shells for axial release of the protective sleeve.

13. The connector-plug part as claimed in claim 12, characterized in that a slot (45) which adjoins the opening (44) and extends in the axial direction is arranged on the inside of the cladding parts (8, 8') and in that the insertion heads (43) are displaceable in the slot after the axial release of the protective sleeve as a safeguard against twisting.
14. The connector-plug part as claimed in one of claims 1 to 13, characterized in that the pin holder and the protective sleeve consist of plastic material and in that the joint is a film hinge.
15. The connector-plug part as claimed in one of claims 1 to 14, characterized in that the connector-plug pin (2) is mounted with limited displaceability in the pin receiving section (5) under axial spring prestressing.